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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 081,089	02 21 2002	Chong Woo	PSS.0027US	2823

7590

06 24 2003

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EXAMINER

TRAN, MAI HUONG C

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,089

Applicant(s)

WOO, CHONG

Examiner

Mai-Huong Tran

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement (PTO-1449 Page 1)
- 4) ☐ Interview Summary (PTO-413, Paper No. s)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

Application's election without traverse of Group I (Claims 13-20) in Paper No. 5 drawn to a semiconductor device is acknowledged for prosecution in the subject application. Accordingly, claims 1-12 and 21 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicants have the right to file a divisional application covering the subject matter of the non-elected claims.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,480,730 to Darrow et al. in view of the remark.

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Regarding to claim 13, Darrow discloses an integrated circuit comprising a substrate 120; an integrated inductor 140 formed over a first side of the substrate 120; an aperture 150 formed in the substrate 120 from a second side of the substrate underneath the inductor 140 as set forth in col. 7, lines 37-67, col. 8, lines 1-4, and fig. 8.

Darrow does not disclose a dielectric material formed in the aperture.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a dielectric material formed in the aperture since it was known in the art that a dielectric material formed in the aperture.

Regarding to claim 14, the circuit including an intervening layer 148 between the inductor and the substrate (col. 7, lines 64-65, and fig. 8).

Regarding to claims 15 and 19, the circuit wherein the intervening layer is a field oxide region (col. 7, lines 64-65, and fig. 8).

Regarding to claim 16, the circuit wherein the aperture is formed completely through the substrate to the intervening layer (col. 7, lines 64-65, and fig. 8).

Due to the large number of sites (17) the model is not a homogeneous mixture of the entire

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Regarding to claim 18, Darrow discloses an integrated circuit comprising a substrate 120; an inductor 140 formed over a first side of the substrate; an aperture 150 formed in the substrate from a second side of the substrate underneath the inductor and extending completely through the substrate from the second side of the substrate to first side of the substrate; an intervening layer 148 between the inductor and the substrate.

Darrow does not disclose a dielectric material filling the aperture and a dielectric material also coating the backside of the substrate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a dielectric material filling the aperture and a dielectric material also coating the backside of the substrate since ^{it} was known in the art that a dielectric material filling the aperture and a dielectric material also coating the back side of the substrate.

Claim 20 is rejected under the same rationale set forth above to claim 18.

HOA/H
PRIMARY EXAMINER

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Conclusion

Any inquiry concerning this communication on earlier communications from the examiner should be directed to Mai-Huong Tran, (703) 305-1958. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Mai-Huong Tran